

C. APPLICANT'S COMMENTS

Claims 1-3, 7, 8, 10-19 are pending in this Application, with 4, 5, 6 and 9 canceled, and with Claims 1, 18, 19 being amended. No new matter is added by way of these amendments, and the amendments are supported throughout the Specification and the drawings. Reconsideration of Claims 1-3, 7, 8, 10-19 is respectfully requested.

The Examiner's rejections will be considered in the order of their occurrence in the Official Action.

Paragraph 1 of the Official Action

The Official Action rejected as-filed Claims 1-11, 15, 18, 19 under 35 U.S.C. §102(b) as being anticipated by Porter et al (U.S. Patent No. 5,908,004). The Applicant respectfully disagrees with this rejection.

It is important to first briefly discuss 35 U.S.C. §102 and its application to the present application. Under section 102(b), anticipation requires that the prior art reference disclose, either expressly or under the principles of inherency, every limitation of the claim.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Under 35 U.S.C. §102, anticipation requires that each and every element of the claimed invention be disclosed in the prior art. In addition, the prior art reference must be enabling, thus placing the allegedly disclosed matter in the possession of the public.

Akzo N.V. v. United States Int'l Trade Comm'n, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987) (emphasis added). Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *W.L. Gore & Assocs. v. Garlock, Inc.*, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984).

Porter (U.S. Patent No. 5,908,004) teaches a “method and apparatus for manipulating and sewing flexible fabric”. More particularly, Porter is a sewing apparatus for joining a first panel and a second panel. Porter uses a first “detector 40a” that is “five inches longitudinally from the needle” that is preferably comprised of an “*ultrasound proximity detector*”. (Figure 1 below; Column 5, Lines 61-64.) The sole purpose and function of the first “detector 40a” is “**to detect the presence of a corner of the top panel.**” (Column 5, Lines 60-61.) Porter says that “[o]ther detectors may be substituted, such as infrared, photoelectric diffused sensor.”

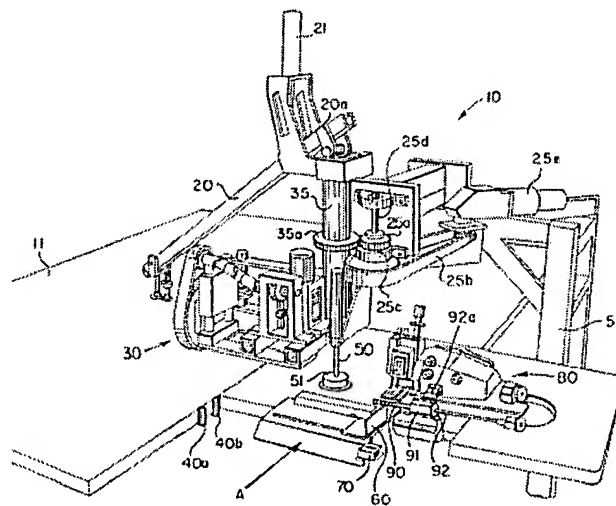


Fig. 1

Figure 1 of Porter et al.

respective edges, with known techniques. A corner detector 40a is positioned at a fixed distance relative to the needle to 60 detect the presence of a corner of the top panel. In a preferred embodiment, detector 40a is an ultrasound proximity detector and is fixed to a side of the work surface 11 five inches longitudinally from the needle. Other detectors may be substituted, such as an infrared, photoelectric dif- 65 fused sensor, such as that manufactured by Telemechanique. The infrared sensor utilizes a single head containing an infrared emitter and receiver. The detector 40a provides a first indicative signal to the controller, upon detecting the corner.

Upon receiving the first indicative signal, the controller 5 instructs the stitcher 80 to slow its stitching speed. This is done so that the stitcher will both stitch and pull the panel more slowly, while it is rotated, as described below and so that the panel will not overshoot the location at which it is intended to pivot.

10 A second detector 40b is fixed in a similar manner, preferably spaced at a point 3 or 4 inches longitudinally from the needle. This detector provides a second indicative signal to the controller at that point. This point is referred to as the tangent point of the panel and represents the start of the 15 rounded corner or the point where lines tangent to the corner transition from being parallel to the edge of the panel to being non-parallel to the panel edge. Upon receiving the second signal, the controller causes a pivot arm 50 to lower into engagement with the top panel at a corner 300 (see FIG. 20 3A) defined by the edge 301 that is being joined and the edge 302 the proximity of which was detected by corner detector 40a. Pivot arm 50 includes a rotatable disc 51, which has a

Column 5, Lines 59-66; Column 66, Lines 1-23

However, none of the detectors discussed within Porter are designed for or are capable of measuring the movement of a piece of fabric relative to a needle wherein the movement is comprised of either a **direction** or a **velocity** component. Claim 1 (as amended) specifically identifies the direction and velocity capabilities of the optical sensor used in the present invention (similar to optical computer mice that use a small CCD camera to actually photograph the fabric repeatedly to calculate the speed and direction of the movement of the fabric). Porter is simply capable of "*detecting the corner*" of the top panel and nothing more. (Column 6, Lines 1-3.)

Claim 1 (as amended) has the following features:

1. (Currently Amended) An optical stitch regulator system, comprising:

a sewing machine; and
at least one **optical sensor** attached to said sewing machine **for measuring a movement of a piece of fabric relative to a needle of said sewing machine, wherein said movement is comprised of a direction and a velocity of the piece of fabric** and, wherein said optical sensor is in communication with said sewing machine regarding said movement.

Porter does not teach nor suggest an optical sensor on a sewing machine that measures the direction and/or velocity of the fabric relative to the needle to allow for adjustment of the needle movement for patterns and the like. Independent Claims 18 and 19 have similar unique features not shown in the prior art patents.

The Applicant respectfully submits that Porter does not qualify as appropriate prior art under 35 U.S.C. §102(b) as Porter does not disclose (expressly or inherently) all of the elements of independent Claims 1, 18, 19.

Paragraph 2 of the Official Action

The Official Action rejected Claims 12-14, 16-17 under 35 U.S.C. §103(a) as being unpatentable over Porter et al. in view of Pordzik (U.S. Patent No. 5,215,020). The Applicant respectfully disagrees with this rejection of these claims. The Applicant incorporates by reference the above-stated arguments with respect to Porter into this section.

In proceedings before the United States Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art. *In re Bell*, 26 USPQ2d 1529, 1530 (Fed. Cir. 1993). *In re Oetiker*, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). When references cited by the Examiner fail to establish a prima facie case of obviousness, the rejection is improper and will be overturned upon appeal. *In re Fine*, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have

found the claimed invention to have been obvious in light of the teachings of the references.” *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

“To establish a *prima facie* case of obviousness, three basic criteria must be met.” MPEP §706.02(j). First, there must be some **suggestion or motivation**, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a **reasonable expectation of success**. Finally, the prior art reference (or references when combined) **must teach or suggest all the claim limitations**. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The law regarding *obviousness* is clear -- any modification of the prior art must be suggested or motivated by the prior art. It is submitted that combining elements from different prior art references (in an attempt to establish obviousness) must be motivated or suggested by the prior art.

'Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so.' [citation omitted] Although couched in terms of combined teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.

In re Fritch, 972 F.2d 1260; 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992), (in part quoting from *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577; 221 USPQ 929, 933 (Fed. Cir. 1984)).

It is also submitted that the mere fact that one may argue that the prior art is capable of being modified to achieve a claimed structure does not by itself make the claimed structure obvious -- there must be a motivation provided by the prior art.

The examiner finds the claimed shape would have been obvious urging that (our emphasis) "it is obvious for one skilled in the art to form each hook base of any desired shape *** since *this is within the capabilities of such a person.*" Thus, the examiner equates that which is within the capabilities of one skilled in the art with obviousness. Such is not the law. There is nothing in the statutes or the case law which makes "that which is within the capabilities of one skilled in the art" synonymous with obviousness.

The examiner provides no reason why, absent the instant disclosure, one of ordinary skill in the art would be motivated to change the shape of the coil hooks of Hancock or the German patent and we can conceive of no reason.

Ex parte Gerlach and Woerner, 212 USPQ 471 (PTO Bd. App. 1980) (emphasis in original).

Neither Porter nor Pordzik teach or suggest an optical sensor on a sewing machine that measures the direction and/or velocity of the fabric relative to the needle to allow for adjustment of the needle movement for patterns and the like. This is a significant feature of independent Claim 1 that should not be overlooked by the Examiner. Independent Claims 18 and 19 have similar unique features not shown in the prior art patents.

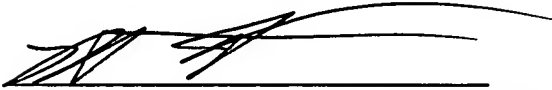
For these reasons, among others, the combination of Porter with Pordzik cannot suggest the combination of features in applicant's Claims 12-14, 16-17, and it is therefore submitted that the rejection against these claims should be withdrawn and Claims 12-14, 16-17 allowed.

D. CONCLUSION

In light of the foregoing amendments and remarks, early reconsideration and allowance of this application are most courteously solicited. Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully asked that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. Alternatively should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, they are invited to telephone the

undersigned.

Respectfully submitted,



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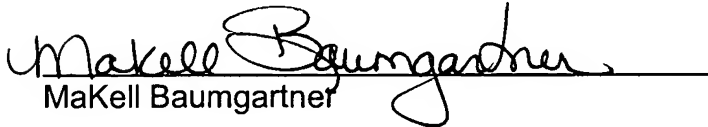
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On November 24, 2004.


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